

Abstract (figure 1)

An apparatus for reforming rod-shaped, electrically conductive and/or magnetizable materials, in particular for drawing and extruding, having the following features:

- the apparatus (1) has a female mold (3) having a die (4), which forms the tool for reforming;
- the apparatus (1) has an inductor (5) of an electric linear motor, by means of which a traveling electric field can be produced;
- the inductor (5) comprises at least one first group (6) at least with first coils (8);
- the first coils (8) in the first group (6) are arranged axially next to one another and thus form a channel (12);
- using the inductor (5) it is possible to produce a traveling field in the channel (12) which has a magnetic flux density having a gradient in the axial direction of the channel (12), which has an amplitude of greater than $B = 1 \text{ T}$.